

## NOTES ON THE FLORA OF ONEIDA LAKE AND VICINITY

BY HOMER D. HOUSE

The flora of Oneida Lake and its vicinity, in central New York, has a decidedly local aspect and differs greatly from that of other lakes of central or western New York. The lake is about twenty miles long, from east to west, and five or six miles wide at its eastern end. The drainage is into Lake Ontario through the Oneida and Oswego rivers. It lies at an altitude of 350 feet above the sea level.

The eastern shore is a broad beach of white sand, from 100 to 300 feet in width. This sand underlies the superficial soil for several miles to the east. It is quite evident that this extensive sandy region east of the lake must have been covered by water within recent geological times. The exposure of the sand following the removal of the original forest has produced in many places sand-plains, barrens, sandy marshes and bogs. The southern shore is also low and in many places marshy, while the northern shore is high and mostly stony. The sandy beach of the eastern shore is particularly rich in small cyperaceous plants, such as *Cyperus rivularis* Kunth, *C. inflexus* Muhl., *C. speciosus* Vahl, *C. filiculmis* Vahl, *Fimbristylis autumnalis* (L.) R. & S., *Scirpus Smithii* A. Gray, *S. Americanus* Pers., *Hemicarpha micrantha* (Vahl) Britton, *Eleocharis acicularis* (L.) R. & S., *E. intermedia* (Willd.) Schultes. Among the flowering plants, *Lathyrus maritimus* (L.) Bigel. and *Polygonella articulata* (L.) Meissn., two species which are commonly credited to the seashore and the great lakes, occur here quite plentifully. The former was mentioned by Paine in his Catalogue of Plants of Oneida County in 1865. The latter, much more abundant, was not reported by him and may be a later arrival. The sandy fields and barrens around the eastern end of the lake yield such uncommon species as *Stenophyllus capillaris* (L.) Britton, *Blephariglottis ciliaris* (L.) Rydb., *Gyrostachys gracilis* (Bigel.) Kuntze, *G. ochroleuca* Rydb., *Asclepias tuberosa* L., *Verbascum Lychnitis* L., *Viola fimbriatula*

J. E. Smith, *V. arenaria* DC. and *Botrychium obliquum intermedium* (D. C. Eaton) Underw.<sup>6</sup> The finding of two or three plants of *Ipomoea hederacea* Jacq. in full bloom, upon the edge of a sandy field, seems to establish a much more northern range than has hitherto been ascribed to this species, Long Island being the northern range given in Britton's Manual.

Behind the sandy beach of the eastern shore is a dense wood of pine and oak, which, in turn, gives place further back to extensive marshes and barrens. The plants typical of the woods are *Peranium pubescens* (Willd.) MacM., *P. ophioides* (Fernald) Rydb., *Pyrola secunda* L., *Monotropa uniflora* L., *Hypopitys Americana* (DC.) Small, *Epigaea repens* L. and several species of *Vaccinium*. The region of sandy marshes and bogs is peculiar for central New York in being underlaid by pure sand, which gives a corresponding character to the flora. All of the low grounds are very rich in species of *Carex*, some rare species having been found here by Dr. Haberer, of Utica. Two other sedges, *Cyperus esculentus* and *Rynchospora alba* (L.) Vahl, are found in the marshes. Among the ferns and their allies the most interesting ones are *Lycopodium lucidulum* Michx., *L. inundatum* L., *L. obscurum* L., *L. clavatum* L., *L. complanatum* L., and *Woodwardia Virginica*, (L.) J. E. Smith. Two years ago the writer found *Dryopteris simulata* Davenp. in an open marsh about three hundred yards back from the beach and the fern has been noted there each season since. The fern grows very profusely over a limited area and this is the only station in the St. Lawrence basin, so far as I am able to learn. The marshes and woods are very rich in the commoner species of ferns. Of the trees and flowering plants the following, out of a hundred or more interesting species, seem the most worthy of note. *Nyssa sylvatica* Marsh., *Betula populifolia* Marsh., *Sassafras Sassafras* (L.) Karst., *Bartonia Virginica* (L.) B.S.P., *Decodon verticillatus* (L.) Ell., *Viburnum dentatum* L., *V. cassinoides* L., *V. nudum* L., *Aralia hispida* Vent., *Sanguisorba Canadensis* L., *Spartina cynosuroides* (L.) Willd., *Rhexia Virginica* L., *Kalmia angustifolia* L., *K. glauca* Ait. and *Mikania scaudens* L. *Populus monilifera* Ait. has been reported from Oncida Lake by Painc and others.

The quiet waters of the streams tributary to the eastern end of the lake abound in such species as *Azolla Caroliniana* Willd., *Heterantha dubia* (Jacq.) MacM., *Wolffia Columbiana* Karst., *Polygonum emersum* (Michx.) Britton, *Nymphaca advena* Soland., *N. Kalmiana* (Michx.) Sims, *Sparganium simplex* Huds., *S. Americanum* Nutt., *Comarum palustre* L., *Menyanthes trifoliata* L., *Utricularia vulgaris* L., *Saururus cernuus* L. and several species of *Potamogeton*. In the shallow waters of the lake occur some of the same species found in the streams with the following, *Limnanthemum lacunosum* (Vent.) Griseb., *Sagittaria graminea* Michx., *Naias flexilis* (Willd.) Rost. & Schmidt, *Equisetum fluviatile* L., *Scirpus fluviatilis* (Torr.) A. Gray and *Roripa Americana* (A. Gray) Britton.

The occasional sandy beaches of the southern shore present about the same floral characters as those of the eastern shore. At Lewis Point is also found *Equisetum littorale* Kuehl., *E. hyemale intermedium* A. A. Eaton, and a plantain which seems referable to *Plantago halophila* Bicknell. In low marshy places *Teucrium boreale* Bicknell is abundant, and *Selaginella apus* (L.) Spring, thrives everywhere. *Dryopteris simulata* Davenp. is reported from the southern shore by Dr. Haberer. Two ferns might be mentioned here which were observed in unusual habitats, *Botrychium obliquum Oneidense* Gilbert, along the edge of high-water mark, and *Ophioglossum vulgatum* L., considerably below that mark, both rather scarce, however. The flora of the northern shore and of the western end of the lake is not so well known to the writer as that of the eastern portion of the lake. However, where sandy beaches are present the flora is without doubt similar to that of the eastern shore.

Space cannot be taken to enumerate all of the species peculiar to this region or interesting to the collector, but enough have been noted to give a general idea of the character of the flora and to show that in some respects it is of a decidedly local nature. There are no strictly maritime species present, as are found at Onondaga Lake. At the latter place several salt springs produce semi-maritime conditions. Onondaga Lake, however, lacks the extensive sandy beaches and sand barrens of Oneida Lake, which

seem very favorable for a larger local flora and for several beach-plants found elsewhere only along the sea-coast and the great lakes.

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## A KEY TO THE NORTH AMERICAN SPECIES OF INOCYBE—I

BY F. S. EARLE

The genus *Inocybe* contains a large number of species and these are usually quite well marked. It is a rather well-defined natural group but at times some of the species have been confused with *Hebeloma* and others with *Naucoria*. The plants are mostly small and are inconspicuously colored. They usually occur on the ground in the woods but some are found in pastures or other open places and in cultivated fields. A few grow on rotten wood. For the most part the species are rather local and it is evident that their number will be largely increased when the North American fungus flora comes to be better known. In the material collected within a radius of one hundred miles from New York City during the past two years fifteen or twenty forms occur that cannot be referred to any of the following species. It is probable that many of these are undescribed but publication of them is withheld for the present.

### KEY TO THE SECTIONS.

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| 1. Pileus viscid when young or moist.<br>Pileus dry from the first.  | VISCIDAE<br>2.       |
| 2. Pileus glabrous or fibrillose from the remains of the veil, not rimose nor lacerate-squamose; stipe usually glabrous with the apex pruinose.<br>Pileus rimose, lacerate-squamose or squarrose.          | VELUTINAE<br>3.      |
| 3. Pileus glabrous or nearly so, conspicuously radiately rimose; stipe usually pale and fibrillose.<br>Pileus not conspicuously rimose, but lacerate-scaly or squarrose.                                   | RIMOSAE<br>4.        |
| 4. Pileus with appressed lacerate scales, or fibrillose-floccose; stipe appressed-fibrillose, subconcolorous.<br>Pileus squarrose with erect or spreading scales; stipe concolorous, squarrose-squamulose. | LACERAE<br>SQUARROSÆ |